1812

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION  *US/08/816,011*

DATE: 10/27/97
TIME: 16:05:00

*INPUT SET: S21197.raw*

This Raw Listing contains the General
Information Section and up to the first 5 pages.

#4 (J.R.
11/04/97

*ENTERED*

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 1                              SEQUENCE LISTING
 2
 3    (1)    General Information:
 4
 5        (i) APPLICANT: Price, Laura A.
 6                       Pausch, Mark H.
 7
 8      (ii) TITLE OF INVENTION: Potassium Channels, Nucleotide Sequences
 9               Encoding Them, and Methods of Using Same
10
11     (iii) NUMBER OF SEQUENCES: 56
12
13      (iv) CORRESPONDENCE ADDRESS:
14            (A) ADDRESSEE: American Home Products Corporation
15            (B) STREET: One Campus Drive
16            (C) CITY: Parsippany
17            (D) STATE: New Jersey
18            (E) COUNTRY: USA
19            (F) ZIP: 07054
20
21       (v) COMPUTER READABLE FORM:
22            (A) MEDIUM TYPE: Floppy disk
23            (B) COMPUTER: IBM PC compatible
24            (C) OPERATING SYSTEM: PC-DOS/MS-DOS
25            (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
26
27      (vi) CURRENT APPLICATION DATA:
28            (A) APPLICATION NUMBER: US
29            (B) FILING DATE: 11-MAR-1997
30            (C) CLASSIFICATION:
31
32    (viii) ATTORNEY/AGENT INFORMATION:
33            (A) NAME: Matthews, Gale F.
34            (B) REGISTRATION NUMBER: 32,269
35            (C) REFERENCE/DOCKET NUMBER: 32,421-C2
36
37      (ix) TELECOMMUNICATION INFORMATION:
38            (A) TELEPHONE: 201-683-2134
39            (B) TELEFAX: 201-683-4117
40
41
42    (2) INFORMATION FOR SEQ ID NO:1:
43
44        (i) SEQUENCE CHARACTERISTICS:
45            (A) LENGTH: 2441 base pairs
46            (B) TYPE: nucleic acid
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--> of 28

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47                 (C) STRANDEDNESS: single
48                 (D) TOPOLOGY: linear
49
50
51
52      (ix) FEATURE:
53                 (A) NAME/KEY: CDS
54                 (B) LOCATION: 190..2043
55
56
57      (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
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59   ACGCGATCGC CGCGAGTGTA TATTTTTTTT TTAGCTCAGT CTTCAGTGTT TCGCGATTCT        60
60
61   CTTTAAAAGA AAAAAAAAAT AATAAGTCAA AACTACAAAC CACACAGCGA AAGGCGAAAG       120
62
63   CAACGGTTCC TGCGAGTGTT TATTTTTTTT TTCAACAATT TTTGATCGTA GTGCGACAAT       180
64
65   CCGTCGAGC ATG TCG CCG AAT CGA TGG ATC CTG CTG CTC ATC TTC TAC          228
66             Met Ser Pro Asn Arg Trp Ile Leu Leu Leu Ile Phe Tyr
67              1                 5                   10
68
69   ATA TCC TAC CTG ATG TTC GGG GCG GCA ATC TAT TAC CAT ATT GAG CAC       276
70   Ile Ser Tyr Leu Met Phe Gly Ala Ala Ile Tyr Tyr His Ile Glu His
71      15                  20                  25
72
73   GGC GAG GAG AAG ATA TCG CGC GCC GAA CAG CGC AAG GCG CAA ATT GCA       324
74   Gly Glu Glu Lys Ile Ser Arg Ala Glu Gln Arg Lys Ala Gln Ile Ala
75    30                  35                  40                  45
76
77   ATC AAC GAA TAT CTG CTG GAG GAG CTG GGC GAC AAG AAT ACG ACC ACA       372
78   Ile Asn Glu Tyr Leu Leu Glu Glu Leu Gly Asp Lys Asn Thr Thr Thr
79                  50                  55                  60
80
81   CAG GAT GAG ATT CTT CAA CGG ATC TCG GAT TAC TGT GAC AAA CCG GTT       420
82   Gln Asp Glu Ile Leu Gln Arg Ile Ser Asp Tyr Cys Asp Lys Pro Val
83              65                  70                  75
84
85   ACA TTG CCG CCG ACA TAT GAT GAT ACG CCC TAC ACG TGG ACC TTC TAC       468
86   Thr Leu Pro Pro Thr Tyr Asp Asp Thr Pro Tyr Thr Trp Thr Phe Tyr
87              80                  85                  90
88
89   CAT GCC TTC TTC TTC GCC TTC ACC GTT TGC TCC ACG GTG GGA TAT GGG       516
90   His Ala Phe Phe Phe Ala Phe Thr Val Cys Ser Thr Val Gly Tyr Gly
91      95                  100                 105
92
93   AAT ATA TCG CCA ACC ACC TTC GCC GGA CGG ATG ATC ATG ATC GCG TAT       564
94   Asn Ile Ser Pro Thr Thr Phe Ala Gly Arg Met Ile Met Ile Ala Tyr
95   110                 115                 120                 125
96
97   TCG GTG ATT GGC ATC CCC GTC AAT GGT ATC CTC TTT GCC GGC CTC GGC       612
98   Ser Val Ile Gly Ile Pro Val Asn Gly Ile Leu Phe Ala Gly Leu Gly
99                  130                 135                 140
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**RAW SEQUENCE LISTING**
**PATENT APPLICATION  *US/08/816,011***

*INPUT SET: S21197.raw*

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101  GAA TAC TTT GGA CGT ACG TTT GAA GCG ATC TAC AGA CGC TAC AAA AAG      660
102  Glu Tyr Phe Gly Arg Thr Phe Glu Ala Ile Tyr Arg Arg Tyr Lys Lys
103          145                   150                   155
104
105  TAC AAG ATG TCC ACG GAT ATG CAC TAT GTC CCG CCG CAG CTG GGA TTG      708
106  Tyr Lys Met Ser Thr Asp Met His Tyr Val Pro Pro Gln Leu Gly Leu
107          160                   165                   170
108
109  ATC ACC ACG GTG GTG ATT GCC CTG ATT CCG GGA ATA GCT CTC TTC CTG      756
110  Ile Thr Thr Val Val Ile Ala Leu Ile Pro Gly Ile Ala Leu Phe Leu
111          175                   180                   185
112
113  GTG CTG CCC TGC GTG GGT GTT CAC CTA CTT CGA GAA CTG GGC CTA TCT      804
114  Val Leu Pro Cys Val Gly Val His Leu Leu Arg Glu Leu Gly Leu Ser
115  190                   195                   200                   205
116
117  TCC ATC TCG CTG TAC TAC AGC TAT GTG ACC ACC ACA ACA ATT GGA TTC      852
118  Ser Ile Ser Leu Tyr Tyr Ser Tyr Val Thr Thr Thr Thr Ile Gly Phe
119                    210                   215                   220
120
121  GGT GAC TAT GTG CCC ACA TTT GGA GCC AAC CAG CCC AAG GAG TTC GGC      900
122  Gly Asp Tyr Val Pro Thr Phe Gly Ala Asn Gln Pro Lys Glu Phe Gly
123          225                   230                   235
124
125  GGC TGG TTC GTG GTC TAT CAG ATC TTT GTG ATC GTG TGG TTC ATC TTC      948
126  Gly Trp Phe Val Val Tyr Gln Ile Phe Val Ile Val Trp Phe Ile Phe
127          240                   245                   250
128
129  TCG CTG GGA TAT CTT GTG ATG ATC ATG ACA TTT ATC ACT CGG GGC CTC      996
130  Ser Leu Gly Tyr Leu Val Met Ile Met Thr Phe Ile Thr Arg Gly Leu
131      255                   260                   265
132
133  CAG AGC AAG AAG CTG GCA TAC CTG GAG CAG CAG TTG TCC TCC AAC CTG      1044
134  Gln Ser Lys Lys Leu Ala Tyr Leu Glu Gln Gln Leu Ser Ser Asn Leu
135  270                   275                   280                   285
136
137  AAG GCC ACA CAG AAT CGC ATC TGG TCT GGC GTC ACC AAG GAT GTG GGC      1092
138  Lys Ala Thr Gln Asn Arg Ile Trp Ser Gly Val Thr Lys Asp Val Gly
139                    290                   295                   300
140
141  TAC CTC CGG CGA ATG CTC AAC GAG CTG TAC ATC CTC AAA GTG AAG CCT      1140
142  Tyr Leu Arg Arg Met Leu Asn Glu Leu Tyr Ile Leu Lys Val Lys Pro
143          305                   310                   315
144
145  GTG TAC ACC GAT GTA GAT ATC GCC TAC ACA CTG CCA CGT TCC AAT TCG      1188
146  Val Tyr Thr Asp Val Asp Ile Ala Tyr Thr Leu Pro Arg Ser Asn Ser
147          320                   325                   330
148
149  TGT CCG GAT CTG AGC ATG TAC CGC GTG GAG CCG GCT CCC ATT CCC AGC      1236
150  Cys Pro Asp Leu Ser Met Tyr Arg Val Glu Pro Ala Pro Ile Pro Ser
151  335                   340                   345
152
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*INPUT SET: S21197.raw*

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154   Arg Lys Arg Ala Phe Ser Val Cys Ala Asp Met Val Gly Ala Gln Arg
155   350             355                 360                 365
156
157   GAG GCG GGC ATG GTA CAC GCC AAT TCC GAT ACG GAT CTA ACC AAA CTG        1332
158   Glu Ala Gly Met Val His Ala Asn Ser Asp Thr Asp Leu Thr Lys Leu
159               370             375                 380
160
161   GAT CGC GAG AAG ACA TTC GAG ACG GCG GAG GCG TAC CAC CAG ACC ACC        1380
162   Asp Arg Glu Lys Thr Phe Glu Thr Ala Glu Ala Tyr His Gln Thr Thr
163           385                 390                 395
164
165   GAT TTG CTG GCC AAG GTG GTC AAC GCA CTG GCC ACG GTG AAG CCA CCG        1428
166   Asp Leu Leu Ala Lys Val Val Asn Ala Leu Ala Thr Val Lys Pro Pro
167           400                 405                 410
168
169   CCG GCG GAA CAG GAA GAT GCG GCT CTC TAT GGT GGC TAT CAT GGC TTC        1476
170   Pro Ala Glu Gln Glu Asp Ala Ala Leu Tyr Gly Gly Tyr His Gly Phe
171       415                 420                 425
172
173   TCC GAC TCC CAG ATC CTG GCC AGC GAA TGG TCG TTC TCG ACG GTC AAC        1524
174   Ser Asp Ser Gln Ile Leu Ala Ser Glu Trp Ser Phe Ser Thr Val Asn
175   430                 435                 440                 445
176
177   GAG TTC ACA TCA CCG CGA CGT CCA AGA GCA CGT GCC TGC TCC GAT TTC        1572
178   Glu Phe Thr Ser Pro Arg Arg Pro Arg Ala Arg Ala Cys Ser Asp Phe
179               450                 455                 460
180
181   AAT CTG GAG GCA CCT CGC TGG CAG AGC GAG AGG CCA CTG CGT TCG AGC        1620
182   Asn Leu Glu Ala Pro Arg Trp Gln Ser Glu Arg Pro Leu Arg Ser Ser
183               465                 470                 475
184
185   CAC AAC GAA TGG ACA TGG AGC GGC GAC AAC CAG CAG ATC CAG GAG GCA        1668
186   His Asn Glu Trp Thr Trp Ser Gly Asp Asn Gln Gln Ile Gln Glu Ala
187           480                 485                 490
188
189   TTC AAC CAG CGC TAC AAG GGA CAG CAG CGT GCC AAC GGA GCA GCC AAC        1716
190   Phe Asn Gln Arg Tyr Lys Gly Gln Gln Arg Ala Asn Gly Ala Ala Asn
191       495                 500                 505
192
193   TCG ACC ATG GTC CAT CTG GAG CCG GAT GCT TTG GAG GAG CAG CTG AGA        1764
194   Ser Thr Met Val His Leu Glu Pro Asp Ala Leu Glu Glu Gln Leu Arg
195   510                 515                 520                 525
196
197   AAC AAT CAC CGG GTG CCG GTC GCG TCA AGA AGT TCT CCA TGC CGG ATG        1812
198   Asn Asn His Arg Val Pro Val Ala Ser Arg Ser Ser Pro Cys Arg Met
199               530                 535                 540
200
201   GTC TGC GAC GTC TGT TTC CCT TCC AGA AGA AGC ACC CCT CGC AGG ATC        1860
202   Val Cys Asp Val Cys Phe Pro Ser Arg Arg Ser Thr Pro Arg Arg Ile
203           545                 550                 555
204
205   TGG AGC GCA AGT TGT CCG TGG TCT CGG TAC CCG AGG GTG TCA TCT CGC        1908
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*INPUT SET: S21197.raw*

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206   Trp Ser Ala Ser Cys Pro Trp Ser Arg Tyr Pro Arg Val Ser Ser Arg
207       560                 565                 570
208

209   AGG AAG CCA GAT CCC CGC TGG ACT ACT ACA TCA ACA CGG TCA CGG CGG    1956
210   Arg Lys Pro Asp Pro Arg Trp Thr Thr Thr Ser Thr Arg Ser Arg Arg
211       575                 580                 585
212

213   CCT CCA GTC AAT CCT ATT TGC GCA ACG GAC GCG GTC CGC CAC CGC CCT    2004
214   Pro Pro Val Asn Pro Ile Cys Ala Thr Asp Ala Val Arg His Arg Pro
215   590                 595                 600                 605
216

217   TCG AAT CGA ATG GCA GCT TGG CCA GCG GCG GCG GCG GGC TAACGAACAT      2053
218   Ser Asn Arg Met Ala Ala Trp Pro Ala Ala Ala Ala Gly
219                   610                 615
220

221   GGGCTTCCAG ATGGAGGATG GAGCAACCCC GCCATCGGCA TTGGGCGGTG GAGCCTATCA    2113
222

223   ACGCAAGGCG GCTGCTGGCA AGCGCCGACG CGAGAGCATC TACACCCAGA ATCAAGCCCC    2173
224

225   ATCCGCTCGC CGGGGCAGCA TGTATCCGCC GACCGCGCAC GCCTTGGCCC AGATGCAGAT    2233
226

227   GCGACGCGGC AGCTTGGCAA CCAGTGGCTC TGGATCGGCG GCCATGGCGG CAGTGGCCGC    2293
228

229   GCGTCGTGGC AGCCTCTTCC CAGCTACAGC ATCGGCATCA TCGCTGACCT CTGCTCCGCG    2353
230

231   CCGAAGCAGC ATATTCTCGG TTACCTCCGA AAAGGATATG AATGTGCTGG AGCAGACGAC    2413
232

233   CATTGCGGAT CTGATTCGTG CGCTCGAG                                       2441
234

235

236   (2) INFORMATION FOR SEQ ID NO:2:
237

238         (i) SEQUENCE CHARACTERISTICS:
239              (A) LENGTH: 618 amino acids
240              (B) TYPE: amino acid
241              (D) TOPOLOGY: linear
242

243         (ii) MOLECULE TYPE: protein
244

245         (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
246

247   Met Ser Pro Asn Arg Trp Ile Leu Leu Leu Ile Phe Tyr Ile Ser Tyr
248    1                 5                 10                 15
249

250   Leu Met Phe Gly Ala Ala Ile Tyr Tyr His Ile Glu His Gly Glu Glu
251              20                 25                 30
252

253   Lys Ile Ser Arg Ala Glu Gln Arg Lys Ala Gln Ile Ala Ile Asn Glu
254           35                 40                 45
255

256   Tyr Leu Leu Glu Glu Leu Gly Asp Lys Asn Thr Thr Thr Gln Asp Glu
257       50                 55                 60
258
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**SEQUENCE VERIFICATION REPORT**
**PATENT APPLICATION   *US/08/816,011***

*INPUT SET: S21197.raw*

| Line | Error | Original Text |
|------|-------|---------------|
| 28 | Wrong application Serial Number | (A) APPLICATION NUMBER: US |